Cooperative, Integrated Remediation and Restoration Planning (CaIRR) —The LaTex Approach

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THE TRUSTEES, RESPONSE AGENCIES, AND COMPANIES (PRPs) IN LOUISIANA AND TEXAS and other States are finding ways to cooperatively come to a decision on natural resource liability and get restoration resultson the ground. The authors of this poster have settled many waste site cases using the tools and approaches included here. Other approaches have been used and new ideas are welcome as we attempt to resolve cases that are on the horizon.

Benefits of the CaIRR Approach

- Integration—takes advantage of the response process needed to protect natural resources and ensures that response data helps to identify and scale natural resource injuries and restoration requirements.
- Flexibility—varies according to site-specific conditions and other circumstances.
- Speed—works within the time frame needed to resolve cleanup liability.
- Efficiency—minimizes the need for additional assessment studies and can be implemented either during or after remedial actions.
- Cost effectiveness—minimizes assessment and legal costs.
- Litigation options—are not precluded if cooperation ceases.

Identification of Potential Injuries/Trustee Coordination

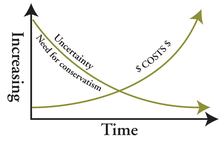
- Potentially Injured Natural Resource Matrix (PINRM) is used to foster agreement on which natural resources at the site need to be evaluated.
- Injury categories are based on potential magnitude of potential injury. This ranking is considered in determining a reasonable level of effort needed to assess each injury.
- A screening-level understanding of potential injury is developed using existing data.
- Resources at the site are documented.
- Potential resource exposure and effects due to contaminants or potential response actions are identified.
- Use of CaIRR by establishing relationships with a viable, interested PRP is recommended.
- A preliminary, conservative "best estimate" of potential losses and restoration requirements is developed using a screening-level habitat equivalency analysis (HEA) or other methods to estimate the restoration scale.
- MOA is established between the trustees to guide coordinated and cooperative approach.
- Litigation options are not precluded if cooperation ceases.
- Long-standing history of providing a single voice to responsible parties through a lead administrative trustee is followed.

Initiation

Trustees typically invite the PRP (by letter) to participate, on a cooperative basis, in an integrated remedial and restoration planning process. This process leads to a comprehensive, restoration-based settlement to resolve the responsible parties' NRD liability at the site.

The Reasonably Conservative Approach to NRDA

It is sometimes better to make reasonable, conservative estimates of natural resource injuries/losses using information obtained for other purposes than to spend additional time and money on injury assessment studies. At some point, the additional costs of refining the conservative estimate do not justify further investment when compared to the costs of additional habitat compensation.



Texas & Louisiana Cooperative Natural Resource Damage Assessment Process

- Is restoration based.
- Provides process guidelines through MOA development.
- Utilizes existing appropriate data.
- Provides joint collection and evaluation of data.
- Offers joint scaling of appropriate cost-effective restoration.
- Offers an opportunity for restoration plan implementation with trustee oversight.

Reasonably Conservative Injury Evaluation & Restoration Scaling

- Working within the remedial process, the trustees seek to minimize adverse effects to resources. They may acquire information needed to identify and scale natural resource injuries and restoration requirements on a cooperative basis, which eliminates the potential for separate assessments.
- Two closely coordinated activities are conducted: (1) injury assessment to determine the nature and extent of injuries and losses of natural resources and services that require compensation, and (2) estimation of restoration requirements to determine habitat size and type needed as compensation.
- The PINRM can be used by the trustees and PRPs to assist in developing an understanding of probable injuries. If additional data gathering is warranted, these needs can be jointly identified and the data secured.
- At some point, the parties should agree they have adequately captured the information needed to define each injury parameter. Agreement can usually be reached when the level of uncertainty about the data is acceptable to all parties.

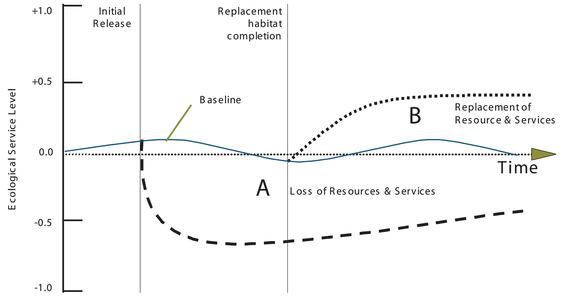
Flexible Assessment Tools

- Use tools that facilitate rapid progress in the assessment.
- Create database of sediment chemistry and toxicity data.
- Import maps and CAD drawings into GIS.
- Use GIS, sediment quality guidelines, and toxicity reference values to provide information needed for concensus on injury quantity.
- Make all products available to entire team.

Habitat Equivalency Analysis

Goal: Loss (A) = (B) Replacement

The team develops reasonably conservative estimates of each HEA variable for each potential injury in the PINRM.



Potentially Injured Natural Resource Matrix (PINRM)

Trustees construct a PINRM. Generally, the level of effort devoted to each potentially injured resource should be based on best judgment of the magnitude of potential injury. To reduce time and transaction costs, matrix simplification is advisable. Injury categories that are plausible, but not feasible to measure, or that are small in magnitude may be eliminated pending additional compensation for uncertainty (if appropriate).

Resource/ Service	*Contaminants*	*Evidence supporting potential injury*	*Injury Assessment data needs*	*Potential actions addressing contamination*	*Restoration Objectives*	*Compensatory Restoration Options*

Transparent Restoration Plan/Environmental Assessment

- Restoration planning—Trustees and PRPs jointly identify and evaluate alternatives available for returning injured resources and/or services to their baseline condition (the condition of natural resources had injury not occurred) and for compensating for the loss from the onset of injury until recovery.
- Identification of preferred restoration alternative.
- Draft Restoration Plan—The preferred alternative and the trustees' evaluation and analysis of restoration alternatives are presented in a draft restoration plan (consistent with and including a NEPA Environmental Assessment Review). The preferred restoration action should be recommended, preferably at a specific location level.

Some Sites Using this Approach

- French Limited, Harris Co., TX (NPL)
- Bailey Waste Disposal, Orange Co., TX (NPL)
- Old Gulf Refinery, Jefferson Co., TX (RCRA)
- International Creosoting, Jefferson Co., TX (State Lead)
- Brio/Dixie Oil Processors, Harris Co., TX (NPL)
- Lavaca Bay, Calhoun Co., TX (NPL)
- Tex-Tin, Galveston Co., TX (NPL)
- Palmer Barge, Jefferson Co., TX (NPL)
- Bayou Verdine, Calcasieu Parish, LA (CERCLA)
- Bayou Trepagnier, St. Charles Parish, LA (State Lead)
- Dupont Newport, New Castle Co., DE (NPL)

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